



Measure Success, Prove Results | Double Perspective



Introduction

- I. Implementing Lean requires a substantial investment
- II. Performance measurement systems have evolved but same progression has not been attributable towards gauging Lean
- III. Huge mistakes continue to be made analysing the impact of Lean
- IV. Research undertaken in 5 organisations
- V. My focus – blended academic and practitioner



Issues found with existing systems

- Traditional accounting not conducive for strategic decisions
- Historical nature of makes correlation difficult
- Scant information awarded to the root problems
- Links between financial and non-financial measures is weak
- Less emphasis on cross-functional processes compared to functional ones
- Intangible assets are not considered in depth
- Value creation not considered sufficiently
- Quantity of measures
- Problems in aggregating from operational to strategic levels



Does Lean lead to improved profits?

NIST report (2003) looked at three groupings; operational, administrative and strategic.

Operational performance; i.e., 90% Cycle time reduction; 50% enhanced productivity; Inventory reduced by 80% and space better employed 80%

The McKinsey & Company's Production System Design Centre (PSDC; 2002)

60% of the better performing organizations (where ROCE, exceeded 10% every year over a five year period) were making good use of Lean techniques.

The EEF final investigation (2001) of 352 member companies

Members employing four or more key Lean tools enjoyed greatest increases in productivity and profitability :11%

Koenigsaecker (2005) summarizes the study undertaken by the AME (Association of Manufacturing Excellence)

Benefits included 95% reduction of in lead times and 95% accident rates

Manufacturing Foundation (2004) from a sample of 153 companies in the UK

62% of the sample felt Lean led to efficiencies



Evolution of PMSs

Dimenescu et al., (1997)

Shingo Prize

Balanced Scorecard (BSC)

**Dynamic Multi-dimensional
performance (DMP)**

**The Strategic Measurement,
Analysis and Reporting
Technique (SMART)**

**Performance Measurement
Questionnaire (PMQ)**

Performance Prism

**Integrated Dynamic,
Performance Measurement
System. (IDPMS)**

**Integrated Performance
Measurement System (IPMS)**

**European Foundation for
Quality Management (EFQM)**

Success Dimensions model



Consensus from the investigation

- **46%** of the metrics were employed by the companies
- **35%** of the metrics were never used
- **19%** are not being used but the companies would like to do so
- **40%** of the metrics surveyed were regarded “reasonably useful”

The findings concluded two metrics:

- **“Customer satisfaction”** and
- **“Employee satisfaction”**

deemed the most useful metrics but were often the least used metrics.

- Undeniably, the impact of Lean is not so linear as often portrayed
- Lean influences process improvement performance but the impact on financial performance is further influenced by various external



Findings regards qualities of good metrics

- **Strategic viewpoint** – should enable the meeting of objectives
- **Recognise performance gaps** and improvement prospects
- **Qualitative versus Quantitative metrics.**
- **Vanity versus Actionable metrics**
- **Exploratory versus reporting metrics**; exploratory inform us of the trends
- **Leading versus Lagging metrics**; lagging metric records the past, i.e., customer numbers. A leading metric predicts, i.e., customer complaints
- **Correlated versus Causal metrics**; it is the causality that provides information and diagnostic influence to make forecasts
- **Measures should be consistent** within the organisation's hierarchical structure.
- **Deter duplication**; i.e., defects measured by defect rate, parts per million (ppm), scrap rate, failure rate at inspection, etc.
- **Consider existing measures** and consolidate new ones to retain the relevance.



Assessment of existing measures

Requirements	Respective criteria	Score 1 –10
Essential needs	<ul style="list-style-type: none">- Correct information- Aids objectives- Accurate measurement- Succinct number of measures	
Performance criteria focus	<ul style="list-style-type: none">- Financial or Non-financial criteria- Causal relationships	
Links to stakeholders	<ul style="list-style-type: none">- Is it internal or external too- All stakeholders are deliberated	
Strategic levels measured	<ul style="list-style-type: none">- Corporate or only lower levels are considered	
Time periods contemplated	<ul style="list-style-type: none">- Short, long or does it analyse the overall evolution	
Information requirements	<ul style="list-style-type: none">- How easily it is accessible- IT solutions are explored	



Key lessons learnt

- Lean influences process improvement but impact on financial performance is further influenced by various external mitigating factors
- Key mistakes organisations continue to make regards designing, implementing and evaluating the appropriate metrics
- Need to align the financial and accounting systems with the Lean initiatives is imperative
- Intangible assets (knowledge) may affect financial results; this is through chains of cause-and-effect networks integrating numerous stages
- Some indices are more pertinent at specific times; reliability at the initial stages - market share during growth - at maturity stage, capacity utilization
- The more mature Lean implementors tend to reflect improved profits
- Metrics linked across the organisation not just for manufacturing, but finance, procurement, HRM and other back-office practises



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Thank you for listening

Any questions?